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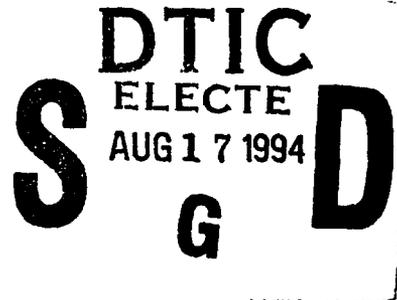
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NAVAL WAR COLLEGE
Newport, Rhode Island

ANALYSIS OF GERMAN OPERATION ART FAILURES
THE BATTLE OF BRITAIN
1940

by

John Turner
Lieutenant Colonel, USAF



A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy or the Department of the Air Force

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ABSTRACT

The Battle of Britain was the first major defeat for the Germans of WWII. The Battle of Britain was an air operation designed to give Germany air superiority over both the English Channel and England. Gaining air superiority was considered by the Germany Army and Navy as absolutely essential prior to "Operation Sea Lion," the landing and invasion of England. Because the Luftwaffe was never able to establish the requisite air superiority, Sea Lion was cancelled.

This paper examines the German Operational Art issues from a historical perspective. It concludes the failure of the Luftwaffe belongs to Reich-Marshall Goring, operational commander for the Battle of Britain. His main failure, as operational commander, was repeatedly making tactical decisions from the operational level rather than leaving this to on-the-scene tactical commanders. Secondly, he was never able to identify Fighter Command as the British Center of Gravity. Thirdly, he never understood the intelligence advantage gained by the British as a result of their newly invented radar early warning system. As a result, Germany lost the battle.

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INTRODUCTION AND BACKGROUND

Introduction

This paper analyzes the 1940 German Air Operation called The Battle of Britain which was the prelude to the aborted Operation Sea Lion. Sea Lion was to be a seaborne invasion by the German Army. It was to take place following the *Luftwaffe's* establishment of air superiority over both the English Channel and England. This paper does not get into the actual strategic or operational aspects of Sea Lion itself because Reich-Marshall Herman Goring Head of the German Air Ministry and Commander-in Chief of the *Luftwaffe*, was unable to establish air superiority over Britain. As a result, Hitler called off Operation Sea Lion on September 17, 1940.

The paper does analyze whether the Reich-Marshall Herman Goring, the Operational Commander for the German Air Operation used Operational Art ideas and techniques. The analysis is approached from the German side rather than the allied.

Background to The Battle of Britain

On 10 May 1940, Germany began the drive against France. Soon after dawn on Thursday, 18 June 1940, France surrendered and the British fighting forces were retreating across the channel to England. In only 39 days Germany had accomplished against France what had been impossible for them to do throughout all the years of World War I: The conquest of France. In addition to France, Hitler now controlled Belgium, the Netherlands, Denmark, Norway, Poland, Austria, and Czechoslovakia. He had regained for the German empire all its lost lands from previous defeats as well as vanquishing his historical European enemies. His only exception was England.

Hitler achieved his conquests with a speed that shocked the world. The German military's development of *blitzkrieg*, the lightning swift coordinated offensive combining the Air Force and Army in a ruthless, quick, and overwhelming land and air attack on its opponents was proving to be the most devastating method of war yet devised.

At 1600 hours on 18 June 1940, Winston Churchill addressed the House of Commons and said: "The Battle of France is over. I expect the Battle of Britain is about to begin."¹ But Hitler did not want a major conflict with Britain at that moment. Rather, his focus was on Russia. To Hitler, the Russian conflict was inevitable. He believed communism was an evil that he must destroy.² However, having recognized the undesirability of a winter offensive, Hitler wanted to wait until the Spring of 1941 to invade Russia.³ He also recognized the difficulty of successfully waging a two front war. Therefore, Hitler wanted matters resolved with England as soon as possible.

For over 20 years, Hitler had known that to get the "living space" Germany needed, he would have to go east into Russia.⁴ Long before the German attack against France, Hitler knew he would have to attack Russia before she grew strong. And, Germany might as well carry out the attack while her military was at its height of self assurance and success. Yet, Hitler had sworn he would never engage in a two front war and his instincts continually told him to avoid that

¹Roger Parkinson, Summer of 1940: The Battle of Britain (New York, 1977), p. 23.

²James L. Stokesbury, A Short History of World War II (New York, 1980), p. 150.

³Ibid.

⁴Basil Collier, The Battle of Britain (New York, 1962), p. 31.

eventuality. Therefore, a way had to be found to quickly take Britain out of the war.⁵

Hitler first mentioned the possibility of invading Britain on 21 May 1940, in a discussion with Grand-Admiral Raeder, Germany's Naval Commander-in-Chief⁶ But there was not unanimous agreement on invading Britain. General Jodl, Chief of Operations at OKW, however, felt that an invasion might not be necessary. He believed that because of the German successes so far, England could no longer expect victory. Rather, England was now continuing the fight only for "... the preservation of its possessions and its world prestige she should... be inclined to make peace when she learns that she can still get it now at relatively little cost."⁷ Hitler agreed with this assessment and set out to write a "peace speech" for the Reichstag. To Hitler, it was imperative to get England out of the war before the planned Russian invasion set for the Spring of 1941.

But, England refused to concede defeat. As Winston Churchill said in his June 18 address to the House of Commons:

The whole fury and might of the enemy must very soon be turned on us. Hitler knows that he will have to break us in this island or lose the war. Let us therefore brace ourselves to our duties and so bear ourselves that, if the British Empire and its Commonwealth last for a thousand years, men will still say: This was their finest hour.⁸

On 2 July 1940, frustrated that Churchill would not come to terms, Hitler ordered his

⁵Ibid.

⁶William L. Shirer, The Rise and Fall of the Third Reich (New York, 1959), p. 759.

⁷Ibid., p. 761.

⁸Roger Parkinson, Summer 1940: The Battle of Britain (New York, 1977), p. 23.

military forces to plan the invasion of England.⁹ However, he still hoped Britain would reach an accommodation that would make the invasion unnecessary. He was anxious to settle the British question quickly.

There was considerable disagreement among the Army, Navy, and German Air Force as to the desirability and method of invading England. Grand-Admiral Raeder, the Naval Commander-in-Chief, told Hitler he could not advocate invasion unless there were no other way to get Britain to agree to peace terms. Raeder preferred a naval blockade rather than an outright invasion.¹⁰ The Army, however, was of mixed feelings. Field-Marshal von Brauchitsch, Commander-in-Chief of the German Army, in an 11 July 1940 meeting presented an eager presentation to the Fuhrer on various army proposals for the invasion. General Halder, the Chief of the General Staff stated that the project was "not wildly impractical," which indicated less than enthusiastic support.¹¹ Reich-Marshal Herman Goring, however, was extremely enthusiastic. He was convinced the *Luftwaffe* could so totally defeat England by itself with no help from the German Army or Navy:

It was characteristic of Goring that he did not shrink from this monstrously tall order. It was also characteristic that the basis of his confidence was not that he really thought that he could eliminate even a poorly equipped British Army after knocking out the Royal Air Force in checkmating the Royal navy, *but that he did not expect to have to do it* (Italics mine). Sharing with many airmen in all countries wildly exaggerated notions of the effectiveness of air attack, he believed that a display of ruthless might would be so decisive that German troops would be

⁹Basil Collier, p. 31.

¹⁰*Ibid.*, p. 32.

¹¹*Ibid.*, pp. 34-35.

able to land with practically no opposition. Since this was exactly what Brauchitsch and Halder hoped might happen, they saw little reason to challenge Goring's views as long as it was possible to believe that he might not be mistaken.¹²

Based upon Churchill's speeches rebuffing Hitler's peace overtures, along with assurances from Goring, Hitler came to the conclusion that an invasion of Britain was necessary. On 16 July 1940, he issued Directive Number 16: "Preparation for a landing Against England," code named "Operation Sea Lion":

As England, despite her hopeless military situation, still shows no sign of willingness to come to terms, I have decided to prepare, and if necessary to carry out a landing operation against her. The aim of this operation is to eliminate the English motherland as a base from which war against Germany can be continued, and, if necessary, to occupy the country completely.¹³

As a result, Oberkommando der Wehrmacht (OKW) began planning Operation Sea Lion. Even though there was considerable disagreement among the German Army and Navy on exactly where and how to carry out the invasion, they did agree German air superiority over the channel and England was absolutely essential.¹⁴ The die was now cast. The planning for Operation Sea Lion began.

For Operation Sea Lion to succeed, Goring would have to establish unquestioned air superiority over both the English Channel as well as England itself. The German Navy was acutely aware that without *Luftwaffe* air superiority the channel crossing would fail. Therefore,

¹²*Ibid*, pp. 38-39.

¹³Francis K. Mason, *Battle Over Britain* (London, 1969), p. 172.

¹⁴Richard Collier, *Eagle Day* (New York, 1966), p. 14.

for Operation Sea Lion to succeed, Goring must defeat the Royal Air Force (RAF) through either air battles or the destruction of RAF bases and aircraft on the ground. Goring, fortified by his successes in continental Europe, believed he could eliminate the British fighter defenses in southern England in only four days. Additionally, once the air operation began, he felt the *Luftwaffe* would destroy the RAF throughout the whole of Britain in a total of only two to four weeks. So confident was Goring that he believed Britain would be forced into submission by the *Luftwaffe* alone. As a result of the *Luftwaffe's* impending success, Goring felt that a land invasion by German troops would most likely not even be necessary.¹⁵

FORCE ORGANIZATION AND STRUCTURE

Germany's Luftwaffe

The *Luftwaffe* as a separate military branch of service came into existence on March 1, 1935.¹⁶ By 1939, three Operational Commands, or *Luftflotten* had been created. *Luftflotte 1*, commanded by Field-Marshal Kesselring, with its headquarters in Berlin, covered North and East Germany. *Luftflotte 2* was commanded by General Felmy and covered Northwest Germany and was headquartered out of Brunswick. *Luftflotte 3* whose headquarters was at Munich, was commanded by Field-Marshal Sperrle. *Luftflotte 4* covered Southeast Germany, Austria and occupied Czechoslovakia and was commanded by General Lohr.¹⁷ *Luftflotte 5* was formed in Northern Germany in the middle of April, 1940 and shortly afterwards moved to Oslo, Norway.

¹⁵William L. Shirer, pp. 774-775.

¹⁶Matthew Cooper, The German Air Force, 1933-1945 (New York, 1981), p. 4.

¹⁷Francis K. Mason, p. 74.

Command was given to Generaloberst Stumpff. *Luftflotten 2, 3, and 5* took part in the Battle of Britain.¹⁸

Appendix A-1 at the end of this study is a map showing the *Luftwaffe* operational areas of command in Germany just prior to the outbreak of war.

Within the *Luftflotte*, parallel administrative and operational hierarchies existed. There was a clear division of responsibility between the administrative *Luftgau* organization, regionally based and operating through the airfield network; and the *Fliegerdivision*, a striking force made up of number of different types of flying units. The strength of the *Fliegerdivision* (later redesignated as the *Fliegerkorps*) and its composition depended on current operational requirements; but a typical *Luftflotte* establishment might include two *Fliegerkorps*, each of which mustered three complete *Geschwader* (bomber and fighter units in combination) plus various specialized reconnaissance *Gruppen*, coastal units, and so forth. The main tactical unit within the *Fliegerdivision/Fliegerkorps* was the *Geschwader*.¹⁹

An organization chart of the Operational Chain of Command of the *Luftwaffe* prior to The Battle of Britain is shown in Appendix A-2 at the end of this report.

From its beginnings as a separate branch of the German military in 1935, the *Luftwaffe* grew quickly. By April, 1940, the *Luftwaffe* had grown to approximately 1600 fighters, 1,700 bombers, 400 dive bombers, and 400 reconnaissance aircraft.²⁰

The *Luftwaffe's* main tactical organization was the *Staffel*, or squadron, of nine aircraft plus the *Gruppe*, or wing, consisting of three squadrons. Usually, three *Gruppen* including a headquarters flight and a reserve or training *Gruppe* made up the *Geschwader*. The *Geschwader*

¹⁸*Ibid.*, p. 108.

¹⁹Francis K. Mason, p. 75.

²⁰Williamson Murray, *Luftwaffe* (Baltimore, 1985), p. 34.

occupied a similar relation to its component units as a cavalry regiment does to troops and squadrons.²¹

In March of 1935, Herman Goring was made Commander-in-Chief of the *Luftwaffe*. By May of 1940, Generaloberst Kesselring was transferred from *Luftflotte 1* and made commander of *Luftflotte 2*. Therefore, Goring was the Chief of Staff, Kesselring was commander of *Luftflotte 2* and Generaloberst Sperrle headed up *Luftflotte 3*. *Luftflotte 5* was commanded by Generaloberst Stumpff. These three *Luftflotten* were the main *Luftwaffe* combatants in the Battle of Britain. *Luftflotte 2*, after the successful drive against France, was now headquartered in Brussels, Belgium. It commanded two air corps and an air division. *Luftflotte 3* was headquartered in Saint-Cloud, France on the outskirts of Paris. It encompassed three air corps and the rear headquarters of another.²² *Luftflotte 5* was based in Oslo, Norway.

Appendix A-3 at the end of this paper is a map showing the locations of *Luftflotte 2* and *3* as they are positioned following the fall of France and throughout The Battle of Britain.

Combined, Sperrle and Kesselring commanded twelve complete and three incomplete long range bomber *Geschwader*, as well as four independent *Gruppen* with over 1,300 aircraft, approximately one-third of which were Junkers 88 bombers and the rest Heinkel III's and Dornier 17's. They also had three hundred dive bombers, 800 Messerschmitt 109's as well as reconnaissance aircraft, mainly seaplanes and a few night fighters, for a total of almost 3,000 aircraft. This was nearly 1.5 times as many aircraft as the Royal Air Force had at that time.²³

²¹Basil Collier, p. 56.

²²*Ibid.*, p. 58.

²³*Ibid.*, p. 60.

Historically, the German High Command (OKW) utilized the *Luftwaffe* to support the Army. To do this, gaining air superiority over the battlefield was critical.²⁴ The significance is that the *Luftwaffe*, because of its history and culture, was in actuality a tactical rather than a strategic arm of the military. As early as 1936 it had been decided to concentrate on fighter aircraft rather than long range bombers. Decisions had been made to cancel development of a four-engine bomber. The reasons cited were the high cost of developing and operating a four engine bomber and the tactical nature of the *Luftwaffe's* mission, which was close air support to the German Army.²⁵

As a result of the foregoing, the *Luftwaffe* was ideally organized for *blitzkrieg* warfare on the continent. However, it had no training or experience with the type of warfare being planned as a prelude to The Battle of Britain. This operation required not only establishing air superiority over both the channel and England, but the neutralization of the British Navy and the strategic bombing of England into submission *without the Army's participation*. Rather than their historical role of supporting the Army, this battle would require the *Luftwaffe* to operate independently of the Army, which they had never tried before. This was a shift in strategy to strategic rather than tactical operations. The flamboyant Goring had absolutely no qualms about the ability of the *Luftwaffe* to succeed in this operation. He had no doubts whatsoever about his own superior intellect and tactical brilliance. Goring's unlimited self esteem and importance convinced him there was no task which could not be accomplished if he was the head of the operation.

²⁴Williamson Murray, p. 34.

²⁵Ibid., p. 46.

Brauchitsch, Raeder, and Halder did not share Goring's opinion of himself, Hitler, however, did.²⁶

England's Fighter Command

On the British side, Goring's nemesis was Air Chief Marshall Sir Hugh Dowding of the Royal Air Force. Air Chief Marshall Dowding had worked for over four years to develop his Fighter Command into a comprehensive system of air defense. Under Dowding, Fighter Command Headquarters had divided England into specific geographical Groups and Sectors within those Groups. Dowding's geographical organization of Fighter Command into Groups and Sectors is shown as Appendix A-4 at the end of this study.

The focal point of each sector was a main fighter airfield consisting of 2 to 3 other squadrons. Dowding had the advantage of a newly developed British technological invention eventually to be called "radar" which had been in construction around the coast of England since 1936.²⁷ These radar stations served as an "early warning system" which let Fighter Command know of approaching German aircraft as they took off from the coast of France or attacked from Norway via the North Sea.

The radar intercepts were filtered and disseminated by Fighter Command Headquarters to the groups and sectors. The individual groups then decided which sector should deal with an approaching raid and instructed the sectors as to what forces to send against the invading aircraft. However, once the fighters were airborne, the sectors had complete responsibility for engaging

²⁶Basil Collier, p. 36.

²⁷Ibid., p. 44.

the enemy. The Fighter Command Headquarters stayed out of the decision making process.²⁸

The duties and responsibilities of each level, from the Group through the Sector down to the Squadrons or units were carefully spelled out. Operationally, Fighter Command Headquarters had three responsibilities: First, to allocate fighter squadrons to the groups. Second, all radar information was reported to Fighter Command Headquarters and it was the responsibility of the headquarters to filter and relay the appropriate information to the group and sector stations. Third, the headquarters resolved any disputes between groups. Other than these three main responsibilities, Fighter Command Headquarters left all other decisions to the groups and sectors.²⁹

THE BATTLE OF BRITAIN

The strategic goal Hitler sought was the elimination of England as a belligerent in the war. He saw only two options to accomplish this: Option one was to encourage England to withdraw voluntarily as a combatant with Germany. To secure this objective, Hitler made many speeches that he did not want war with England and preferred only that they agree to end hostilities toward Germany. If England would cease all hostilities, Germany was willing to resume normal relations. As mentioned in the background section of this report, Hitler had made several attempts to secure a cessation of hostilities with England but was rebuffed every time. If the first option could not be achieved, the second objective would be to force England to capitulate under either the threat of or an actual invasion. England knew that if Germany ever actually succeeded in a landing with

²⁸Ibid., p. 53.

²⁹Group Captain John H. Spencer, Research Report: The Battle of Britain Revisited (Maxwell Air Force Base: Air University, 1989), p. 9.

large numbers of troops, Britain was doomed to defeat.³⁰

The Battle of Britain can be segmented into five phases.³¹ First was the *Kanalkampf*, the channel battle, which lasted from 10 July to early August. This was followed by Operation Eagle, which began on *Adlertag*, or Eagle Day and was the main air battle between the Fighter Command and the *Luftwaffe*. This phase began on 13 August 1940 and lasted until 18 August. Following *Adlertag*, Goring decided to switch tactics and attack Fighter Command's airfields from 24 August through 6 September. The fourth phase was the "Battle of London" in which Goring, with Hitler's permission began the day and night bombing of the city of London. The final phase started when Goring once again switched tactics. At this point, he began the highly destructive but strategically ineffective night bombing of London in a last ditch attempt to salvage Operation Sea Lion.³² Finally, On 17 September 1940, Hitler decided against the invasion and postponed Operation Sea Lion "Until further notice."³³

Phase I (*Kanalkampf*): July 10 to early August.

Early on Wednesday, 10 July Goring launched the *Luftwaffe* into their first major attack against England. At 0330 hours, the British radar stations picked up signals the Germans were on their way. Shortly after, 20 to 30 German bombers attacked the south coast towns of Plymouth, Weymouth, Falmouth, Portsmouth and Dover as well as any British convoys they came upon in

³⁰William Green, Warplanes of the Third Reich (London, 1956), pp. 50-53.

³¹John Keegan, The Second World War (New York, 1989), p. 94.

³²Ibid., p. 94.

³³Basil Collier, p. 153.

the channel. During the *Kanalkampf* phase of the battle, approximately 40,000 tons of British shipping was sunk but the Royal Navy was untouched during these raids. Various estimates exist for the number of airplanes shot down on both sides, but it appears approximately 180 German aircraft were shot down to 70 British. Since approximately 100 of the German aircraft lost were bombers, the fighter to fighter destruct ratio was relatively even.³⁴

Hitler became impatient with this phase of the war. He believed the British were already beaten before *Kanalkampf* but they would not recognize this fact. Hitler continued to insist throughout this period that he had no real desire to humiliate Britain the way he did France. He even believed that coexistence between the expanded German empire and the old British empire was possible and might even be to their mutual advantage.³⁵ *Kanalkampf*, the opening phase, thus ended on or about 31 July in a stalemate.

On 1 August 1940, Hitler issued his "Führer's Directive Number 17". He had decided an invasion was the only way to force England out of the war. Führer's Directive Number 17 stated:

1. The Luftwaffe must deploy its full strength in order to destroy the British Air force as soon as possible.
2. When the command of the air has been achieved. . .the air attack will be directed against the ports and special attention will be given to food depots, particularly those which serve London.
3. Attacks upon shipping. . .will be accorded a priority second only to the efforts directed against the destruction of the enemy's power in the air.³⁶

³⁴John Keegan, p. 94.

³⁵*Ibid.*, p. 95.

³⁶Marcel Jullian, The Battle of Britain: July - September 1940 (New York, 1967), pp. 55-56.

Fuhrer's Directive Number 17 also went on to state that the destruction of the Royal Air Force was a clear priority over all other directives. "First the aircraft, then their ground support organization and food supplies. Afterwards the aircraft industry including the factories producing anti-aircraft weapons."³⁷

Phase II (Operation Eagle) 13 to 18 August

On the same day that Fuhrer's Directive Number 17 was issued, Goring assembled his subordinates and laid out his plan to comply with the Fuhrer's directive. Thus, Operation Eagle was born. Phase II kicked off on Eagle Day or *Adlertag*, scheduled for 7 August but postponed by Goring several times. Finally, it started on 13 August and lasted through 18 August. This phase was described by Keegan as "the classic phase of aerial combat between Fighter Command and the *Luftwaffe*."³⁸ It was in this phase that Goring had planned to defeat Fighter Command and gain air superiority over southern England in only four days. He was to be disappointed. On *Adlertag*, *Luftflotte 3* sent over 1000 fighter sorties against Fighter Command to Fighter Command's 700. The Germans lost 45 aircraft on that day and the British 13.³⁹ On 14 August bad weather prevented the Germans from attacking. On 15 August, the *Luftwaffe* flew nearly 1,800 sorties and the British flew approximately 1000. German losses were 74 aircraft to the British total of 34.⁴⁰ Operation Eagle was to be a battle of attrition in which Goring hoped to be

³⁷*Ibid.*, p. 56.

³⁸John Keegan, p. 94.

³⁹Basil Collier, p. 85.

⁴⁰*Ibid.*, p. 90.

able to totally destroy Fighter Command's ability to defend England. However, Goring severely underestimated the capabilities of the British to build new aircraft. The Intelligence Section of the German Air Staff told Goring that Fighter Command had lost 770 aircraft since 1 July. They also estimated that British production of new aircraft could not exceed 300 aircraft. Therefore, the British had, according to the Intelligence Section, only 300 serviceable aircraft on 16 August.⁴¹ British records, however, indicated otherwise.

Since the beginning of July, the British recorded their losses at 205 aircraft. They also had turned out 750 new aircraft since the end of June. However, even though the British were in better shape than German Intelligence had thought, the British position was not as good as the numbers indicated. Over 50 percent of Fighter Command's losses had occurred in the last 10 days and the number of skilled pilots was dwindling. The British were now turning out fewer aircraft than the losses and fewer pilots than required.⁴²

On 16 August, the Germans flew over 1,700 sorties. Both Kesselring and Sperrle now devoted almost their entire effort that day to attacking Fighter Command's aerodromes. The day was a rousing success for the *Luftwaffe*. However, because of Goring's refusal to believe the British radar stations were of any real value, very little effort was made to attack these installations.⁴³

The weather on 17 August was good for flying, but for some unknown reason, the *Luftwaffe* did not attack. As a result, the British made good use of the day to round up additional

⁴¹*Ibid.*, p. 93.

⁴²*Ibid.*, p. 94.

⁴³*Ibid.*, p. 96.

pilots from other locations throughout England. They also studied their situation and analyzed the alternatives open to them. Their conclusion was that things were not favorable for Fighter Command. Air Chief Marshall Dowding began to realize he had an acute shortage of combat ready pilots and that he would have to order much less experienced pilots into combat before they were adequately trained.⁴⁴

On 18 August, Kesselring launched a series of new air attacks. A few hours later, Sperrle launched his aircraft against Fighter Command as well. The Germans believed that Fighter Command was near virtual exhaustion from the relentless pounding inflicted by the *Luftwaffe* since the start of *Adlertag*. However, by nightfall Dowding's fighters had performed magnificently shooting down 71 German aircraft. This inflicted the largest loss the Germans had in a single day. In addition, Dowding's defenses had kept the German bombers from inflicting serious damage. The *Luftwaffe* could no longer believe they had won the air superiority they so desperately needed. The result at the conclusion of Operation Eagle on 18 August was that Goring had poured everything he had into the battle but had achieved less than 50 percent of the damage he sought to inflict. The *Luftwaffe* had lost 236 aircraft to the British 95.⁴⁵

Phase III: 24 August through 6 September

On 24 August, Goring shifted tactics. Instead of continuing the attack against Fighter Command in southern England, he decided to expand the battle to attack and defeat the entire RAF wherever they were throughout England. He ordered all available *Luftwaffe* forces to switch

⁴⁴*Ibid.*, p. 97.

⁴⁵*Ibid.*, p. 99.

tactics to concentrate on his new goal. All targets had to be carefully chosen with that end in view. Around the clock bomber attacks against aircraft factories and air force installations as well as RAF bases were undertaken. However, Hitler ordered that the *Luftwaffe* attack only targets of military significance. London was specifically forbidden to be bombed. From 24 August through 6 September, the *Luftwaffe* launched over 1000 sorties per day against England. The weight of the German attacks began to have their effect on Fighter Command. The British lost 466 aircraft between 24 August and 6 September to the German's losses of 385 (of which only 214 were fighters). Additionally, Fighter Command lost the use of 231 pilots. 103 were killed and 128 seriously wounded. This was almost 25 percent of Fighter Command's total pilots. The tide was shifting against Fighter Command.⁴⁶

And suddenly, on 7 September, Goring switched his strategy to the night bombing of London. This would prove to be a major tactical error on his part. Fighter Command was perilously close to being defeated in a war of attrition which decidedly favored the Germans. Yet Goring opted to move into Phase IV: The Battle of London.

Phase IV (The Battle of London) 7 through 30 September

This phase lasted from 7 September through 30 September 1940. It was, in actuality, a reaction to a minor navigational error by a dozen German bomber pilots on 23 August. While attempting to bomb aircraft factories and oil tanks on the outskirts of London, the Germans inadvertently dropped bombs on the center of London. For the first time in the war British non-combatants were directly bombed. The British believed the attack was a deliberate act of

⁴⁶William L. Shirer, p. 777.

terrorism by Germany. Churchill ordered the bombing of Berlin in retaliation. On the evening of 24 August, for the first time in the war, bombs fell on Berlin. However, the damage was slight. Because of poor weather conditions, only about one-half of the British bombers dropped their bombs. Material damage to Berlin was negligible, but the effect on Hitler was tremendous. In retaliation, Hitler ordered Goring to begin terror bombing of London.⁴⁷ This shift would prove to be a major blunder on the part of Hitler and Goring. Had they stuck to Phase III, the British most likely would have had to sue for peace.

On the afternoon of 7 September, the German air attack began. Wave after wave of German bombers and fighters began their attack on London. From 7 September to 30 September, constant sorties of both day and night bombing attacks were directed against London and other cities. In the first two days the British casualties were approximately 842 people killed and 2,347 wounded. The damage was immense to buildings and property.⁴⁸ In only two days 825 bomber attacks escorted by 648 fighters wreaked havoc upon London and other cities. From 6 September to 3 November, a daily average of over 200 bombers struck England. But British morale stayed high and armament production continued.

On 15 September, one of the most decisive battles of the war was fought. Over 200 German bombers escorted by 600 fighters headed for London. Because Goring had never allowed attacks against England's radar stations, Fighter Command was able to detect the German aircraft coming and intercept them long before they could get to London. Most were shot down or diverted from their intended targets. Later in the day the Germans sent another wave of

⁴⁷Ibid., pp. 777-778.

⁴⁸Ibid., p. 780.

bombers and fighters to London and were again successfully intercepted by Fighter Command before they could reach London.

As a result, Hitler concluded Goring would be unable to achieve the cherished air superiority over England. On 17 September, Hitler called off Operation Sea Lion indefinitely and ordered the invasion barges dispersed. All preparations for Operation Se Lion were suspended until further notice.⁴⁹ Thus ended Phase IV of the Battle of Britain.

Phase V (September 30 through October 31):

Goring's *Luftwaffe* continued to conduct "minor" raids by day and night against the British capital. But the effect was limited. On 30 October, Goring switched tactics once more. He effectively ended the bombing attacks against London and switched to a strategy of "blockade" by once again reverting to attacks on British shipping. In effect, the battle had now come full circle, ending on 31 October much as it had begun on 10 July. The failure of Goring to achieve air superiority over the British and the cancellation of Operation Sea Lion was the first major defeat inflicted upon Germany and the beginning of the end of Hitler's dreams of a Europe dominated by Germany.

GERMAN FAILURE TO ADHERE TO OPERATIONAL ART CONCEPTS

The two strategic commanders for the Battle of Britain were Adolph Hitler and Winston Churchill. Hitler's strategic goal was the elimination of England as a participant or threat to his expanded German empire. As mentioned earlier, Hitler did not originally wish the continuation of war with England. He wanted to concentrate on planning the inevitable war with Russia.

⁴⁹*Ibid.*, pp. 780-781.

Churchill, however, refused cooperate by to terminating hostilities. Therefore, Hitler believed he had no choice but to eliminate England as a combatant.

The Operational Commanders who would practice the Operational Art of war were several. On the German side while Operation Sea Lion was being discussed and planned were Grand-Admiral Raeder, the Naval Commander-in-Chief, Field-Marshal von Brauchitsch, Commander-in-Chief of the German Army, General Halder, the Chief of the General Staff, and Reich-Marshal Herman Goring, Head of the German Air Ministry and Commander-in-Chief of the Luftwaffe. Their job was to ensure accomplishment of the strategic goal of forcing England out of the war. Therefore, they were responsible for planning and implementing the concepts of Operational Art to assure the success of the strategic goal. This would mean they had to plan, coordinate, and execute events at the operational level to assure the tactical commanders could carry out the strategic goal. The tactical commanders were now Field-Marshals Kesselring, Commander of *Luftflotte 2*; Field-Marshal Sperrle, Commander of *Luftflotte 3*; and General Stumpff, Commander of *Luftflotte 5*. Appendix A-5 at the enc of this study is an organization chart of the Chain of Command for Operation Sea Lion.

After considerable debate among the Operational Commanders in the various services, it was concluded that Germany must establish air superiority over both the English Channel and England if Operation Sea Lion was to precede. Therefore, the success of Goring's *Luftwaffe* was the keystone to Sea Lion. Because the Battle of Britain involved neither the German Navy nor Army, the entire focus of effort shifted to the *Luftwaffe*. Whether Hitler would ever be able to realize Operation Sea Lion depended on Goring. The Army and Navy were essentially non-players throughout The Battle of Britain.

On the British side, Air Chief Marshall Sir Hugh Dowding was the Operational Commander and Goring's principal adversary. The chief tactical commanders were the heads of the Balloon Command, Air Vice-marshal Boyd; Observer Corps Commander, Air Commodore Warrington-Morris; and the commanders of Fighter Groups 10, 11, 12 and 13. The major tactical commander in the Battle of Britain was the commander, Group 11, Air Vice-Marshal Park. He would play the prime role in carrying out the British goal of keeping Germany from establishing air superiority. Appendix A-6 at the end of this study is the organizational chart for the British Chain of Command for Home Defense in August, 1940.

The German goal of establishing air superiority over the channel and England failed. The failure must be attributed to Reich-Marshall Goring. He was the operational commander for the Battle of Britain. Goring made several Operational Art errors which led to the defeat of the German air offensive. Chief among these failures was his inability to let his tactical commanders plan and carry out their respective assignments. The evidence indicates that Goring tended to believe only he could guarantee success. He was either filled with his own self confidence and importance so that no tactical commander would be able to operate independently of Goring or he had inadequate tactical commanders. Given the historical records of his tactical commanders, that does not seem to be the case.

A major Operational Art error made by Goring and never challenged by Hitler, was a failure to understand that the *Luftwaffe* was operationally and tactically a support organization for the Army. It had never been a strategic offensive organization. The entire *Blitzkrieg* style of warfare, so successful for Germany up to the summer of 1940 was based upon close air support for the Army in its advance across continental Europe. It had never operated independently of the

Army up to that point. Therefore, the entire concept of bringing England to its knees via air power alone should have generated much more discussion and debate than it did. The *Luftwaffe* was being asked to shift from tactical to strategic bombing for which it was never designed to do. It is interesting to note that Goring convinced himself the battle was tactical rather than strategic by equating the channel to a "river crossing." But, this river was over 25 miles across, and there were no German troops on the opposite shore to capture and hold ground while the *Luftwaffe* waged its attacks in either advance of or in support of the advancing German Army.

The four basic questions of Operational Art seemed to elude Goring altogether. However, in fairness to Goring, the emphasis throughout World War II seemed to be on Strategy and Tactics, with no clear understanding of Operational Art. Rather, Operational Art seems to be an outgrowth of World War II and not a component of it.

A second major Operational Art error on Goring's part was that he never seemed to realize that England's Center of Gravity was its Fighter Command, headed by Dowding. Initially, Goring seemed to recognize this, in what was referred to earlier as *Kanalkampf* of the five phases of the Battle of Britain. The goal of *Kanalkampf* was to draw Fighter Command's aircraft into a battle of attrition over the channel. Additionally, the Germans did not possess good intelligence information. Their Intelligence Section consistently overestimated the British losses and underestimated the British production of new aircraft and trained pilots.

Secondly, Sir Dowding refused to play the game of attrition that Goring so desperately counted on. Dowding committed only a small number of his aircraft during *Kanalkampf* and Goring had no "backup" plan to address this eventuality. Therefore, both Goring and Hitler were frustrated with the inability of the *Luftwaffe* to gain air superiority over the channel immediately.

Even though Phase I did considerable damage to British shipping, as mentioned earlier, neither the British Navy or Fighter Command suffered any significant losses during *Kanalkampf*.

Goring may have discovered that Fighter Command was the center of gravity he needed to attack after the failure of *Kanalkampf*. Therefore, he shifted tactics in Phase II, *Adlertag*.

However, even though he knew he must neutralize Fighter Command in Southern England, he again fell prey to his own braggadocio and announced he could accomplish his goal within 4 days. Goring's failure in this phase was overestimating the ability of the *Luftwaffe*. He thought he could conduct a European style *Luftwaffe blitzkrieg* similar to that so successfully used in Europe (minus the Army). However, he did not consider any possible alternative but victory and locked himself in to a four day period of either success or failure..

Initially *Adlertag* went well for Goring. But, as detailed earlier there were several failings on Goring's part. First, he consistently railed against his tactical commanders, believing that they were not aggressive enough and that he, Herman Goring, better knew what tactics to use than the "on-the-scene" tactical commander. His interference precluded his tactical commanders from doing their job to the best of their abilities. Secondly he made no attempt to improve the intelligence operation and therefore was ignorant of the true nature of the number of British airplanes destroyed and replaced. Thirdly, he failed to account for the technological advantage provided by the radar sites in England. These radar sites gave Fighter Command advance warning of the German offensives. In fact, Goring explicitly told his commanders that the radar sites were not worth going after and refused them the ability to attack and destroy them.

After only five days of *Adlertag*, Goring shifted tactics again. He commenced what could be called Phase III of his attack against Britain. Goring now decided to switch to the goal of

defeating the RAF itself throughout all of Britain. What Goring did not realize was the effect Phase II was having on the southern regions of Fighter Command. Had Goring continued to press the attack under phase II, he would have been able to destroy significantly more British aircraft and pilots. But the shift to Phase II gave Dowding and Fighter Command a breather in the sense that some of the southern pressure was off.

Phase III, however, was not just geared toward only the defeat of Fighter Command. Rather, it was an attempt to defeat the entire RAF as well as Britain's aircraft manufacturing capabilities. This was a much broader initiative and because factories and other facilities affecting industrial output were now being targeted. Therefore, Fighter Command got a reprieve from the relentless attacks they were suffering. Interestingly, as the historical data suggests, Had Goring stuck to Phase III, he may have been able to accomplish the goal of defeating England. As mentioned earlier, even Winston Churchill was concerned that England was close to being defeated. But, an unfortunate navigational error on the part of a few German bombers led to the accidental bombing of a small section of London. This abruptly brought Phase III to a halt.

Churchill believed the bombing of London was deliberate. He then retaliated with bombings on Berlin. This so infuriated Hitler that he ordered Goring to shift tactics to the bombing of London itself, heretofore off limits to the *Luftwaffe*. Goring should have emphasized to Hitler that Germany should not be guiled into changing tactics and should stick with the bomber attacks against the R.A.F. and aircraft plants. But instead, Hitler insisted and Goring complied. Hitler now incorrectly believed the center of gravity was London rather than the RAF and Goring commenced the bombing. Had Goring convinced Hitler that the center of gravity was the RAF and that attacks on them must continue, Hitler most likely would have achieved his goal

of taking England out of the war. Instead, his retaliatory bombing of London now focused the British population even more intensely against Germany. Even though London and other cities were being bombed unmercifully, British workers patriotically continued to go to work and even increased their output of fighting aircraft.

Winston Churchill later stated that the diversion of the bombing attacks way from the RAF and the aircraft plants was a serious error on Goring's part: "Goring should certainly have persevered against the airfields, on whose organization and combination the whole fighting power of our air force depends. Far more important to us that the protection of London . . . was functioning and articulation of these airfields and the squadrons working from them."⁵⁰

As alluded to earlier, another operational error made by Goring was not recognizing the technological advances England had made with radar. Surprisingly, Germany had developed radar also, but for some reason did not attach much importance to the British radar stations. This was a serious mistake, as the British always knew when and the approximate size of the approaching German aircraft. This allowed the British to carry the attack to the German while they were still over the channel. Goring had lost the element of surprise. Also, during this time England even managed to develop a rudimentary IFF (Identification Friend or Foe) capability that would allow them to keep track of their fighters in the air. This gave them a tactical advantage over the lesser equipped German aircraft.

SUMMARY AND CONCLUSIONS

The failure of the Battle of Britain lay with Hitler and Goring. Hitler was at fault for

⁵⁰Winston Churchill, Their Finest Hour (New York, 1949), p. 283.

interfering rather than allowing the operational commanders to plan and execute the strategy and tactics necessary to win the strategic objective. Goring was at fault throughout. He did not stick to operational level planning and let his tactical commanders do their job. He consistently shifted his focus, he did not stick to plans, he did not assure he had adequate intelligence and he seemed to believe that the state of British technology was inferior to his own self professed skills. He seemed to fall prey to that common fighter pilot malady of overconfidence in both his own abilities and the ability of air power alone to win a war.

Many of the Principles of War were violated or ignored. There was no clearly articulated objective that was adhered to for any appreciable length of time during the battle. Goring continually shifted the objective as a result of confusing operational art with tactics. The principle of economy of force was violated in that Goring seemed to just throw aircraft against Britain without considering the capabilities and characteristics of the different types of aircraft and whether they were well suited to the targets they were going after. Surprise was violated as a result of ignoring the radar installations of the British. Security was violated by Goring's repeated failure to realize the technological advantage accruing to Britain via their radar network. Goring failed to realize throughout the entire air operation that he should have ordered attacks against the radar stations.

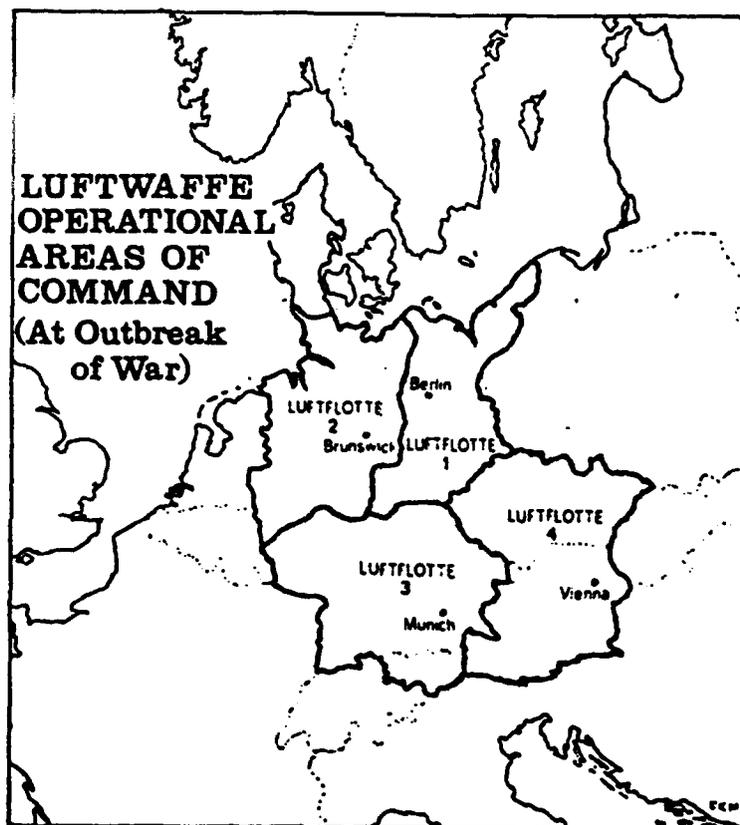
In conclusion, because Goring lacked either the willingness or the understanding of what operational thinking and planning was, the *Luftwaffe* failed to achieve the operational goal that would have made Operation Sea Lion possible. The Battle seemed to end up being a series of changes that were in reaction to events rather than leading events. There was no clear strategy to achieve the overall goal of air superiority so desperately needed by Germany prior to commencing

Operation Sea Lion. No matter what the skills of Kesselring, Sperrle, or Stumpff, they could not do their jobs effectively as a result of Goring's failure to delegate to the tactical commanders the authority and time needed to carry out the air operation.

Lastly, the defeat of Germany in the Battle of Britain was the turning point in Germany's ultimate loss to the allies. Through the disastrous *Luftwaffe* losses inflicted by Fighter Command during the Battle of Britain, Germany severely depleted her air force and was never able to recover to the point she was in prior to the Battle of Britain. And, without the fully functional and capable *Luftwaffe*, Germany would not be able to employ the *Blitzkrieg* style of warfare that had given them so much success prior to the Battle of Britain.

APPENDIX A-1

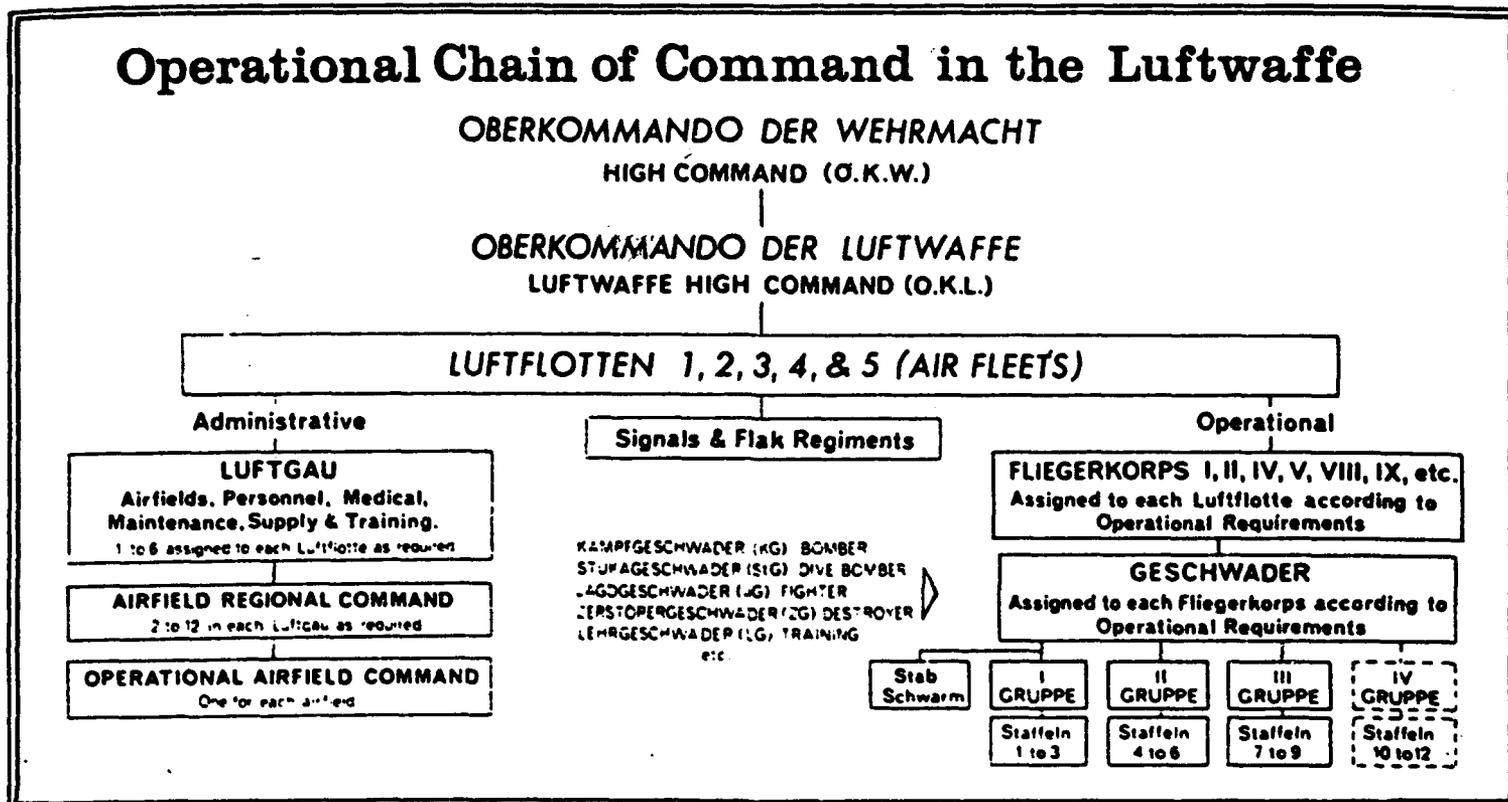
LUFTWAFFE OPERATIONAL AREAS OF COMMAND
WITHIN GERMANY JUST PRIOR TO
OUTBREAK OF WORLD WAR II



Source: Francis K. Mason, Battle Over Britain, London, England: McWhirter Twins, Ltd., p. 74.

APPENDIX A-2

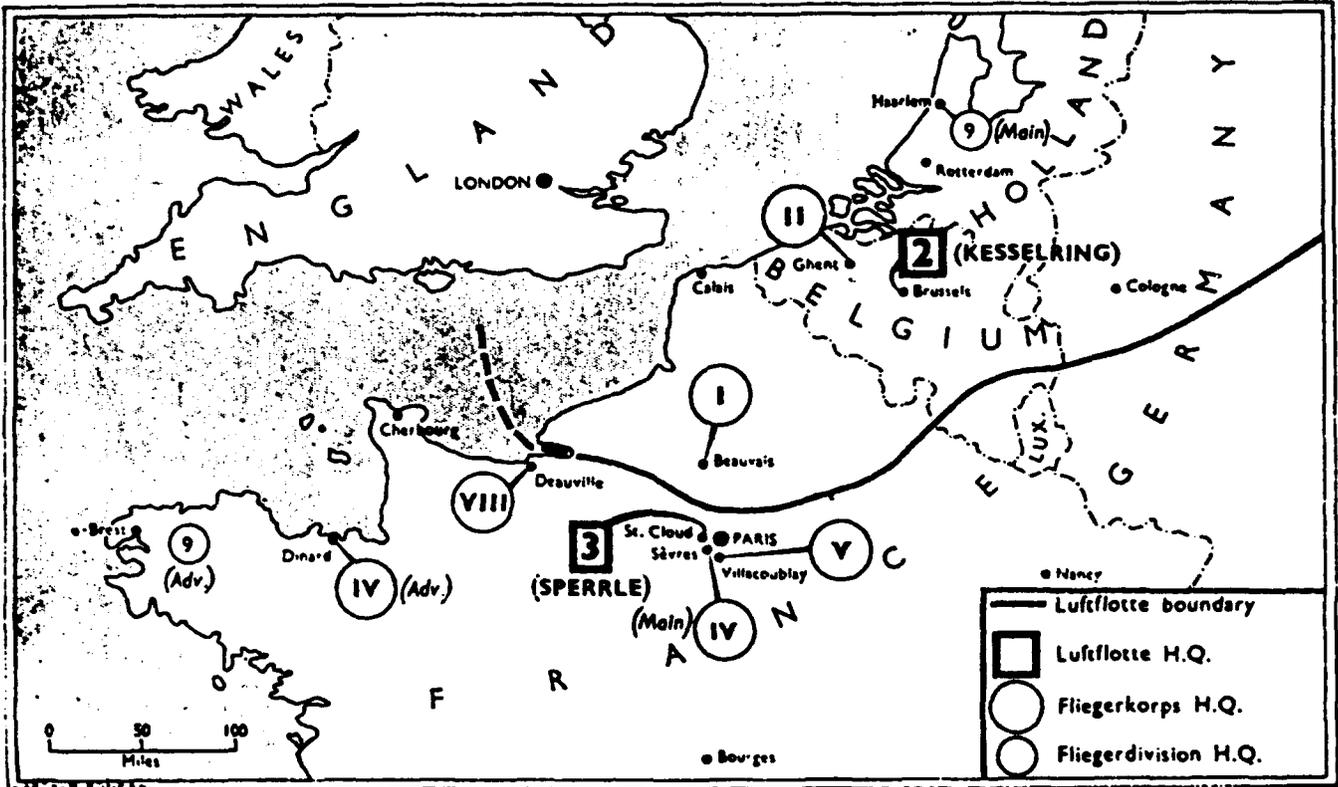
LUFTWAFFE CHAIN OF COMMAND, APRIL 1940



Source: Francis K. Mason, Battle Over Britain. London, England: McWhirter
Twins, Ltd., p. 75

APPENDIX A-3

GEOGRAPHIC AREA OF RESPONSIBILITY FOR LUFTFLOTTEN 2 AND 3
AFTER THE FALL OF FRANCE
SUMMER, 1940



Source: Basil Collier, The Battle of Britain. New York, NY: The MacMillan Company, 1962, p. 58.

APPENDIX A-4

GEOGRAPHICAL ORGANIZATION OF BRITISH FIGHTER COMMAND
AUGUST 1940



Source: Basil Collier, The Battle of Britain. New York, NY: The MacMillan Company, 1962. p. 52.

APPENDIX A-5

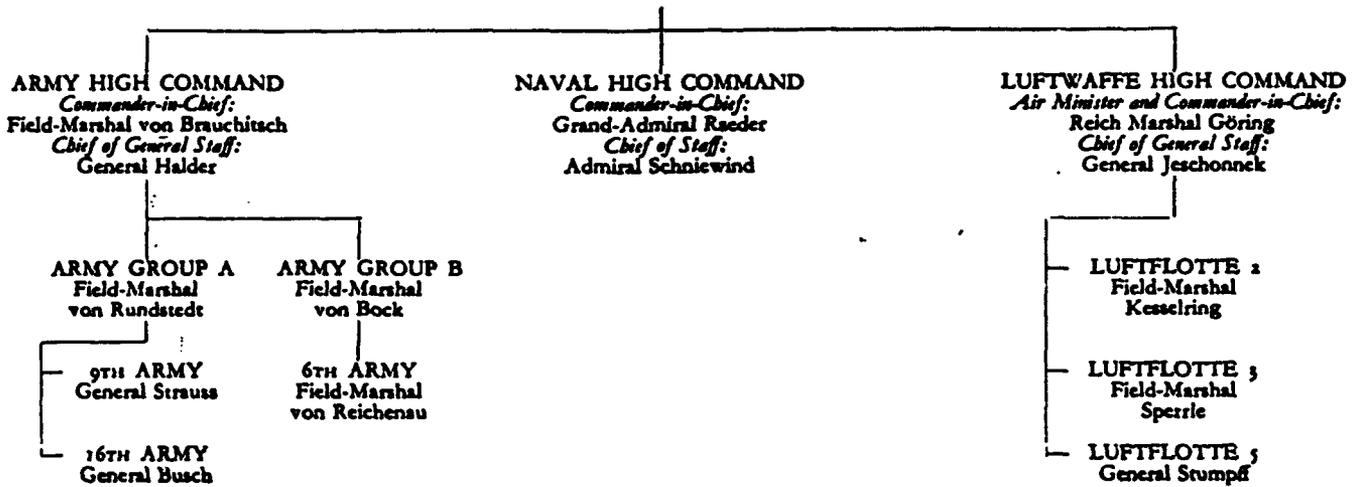
GERMAN CHAIN OF COMMAND FOR OPERATION SEA LION
AUGUST 1940

SUPREME COMMAND OF THE ARMED FORCES

Führer and Supreme Commander: Adolf Hitler

Chief of Staff: Field Marshal Keitel

Chief of Operations Staff: General Jodl



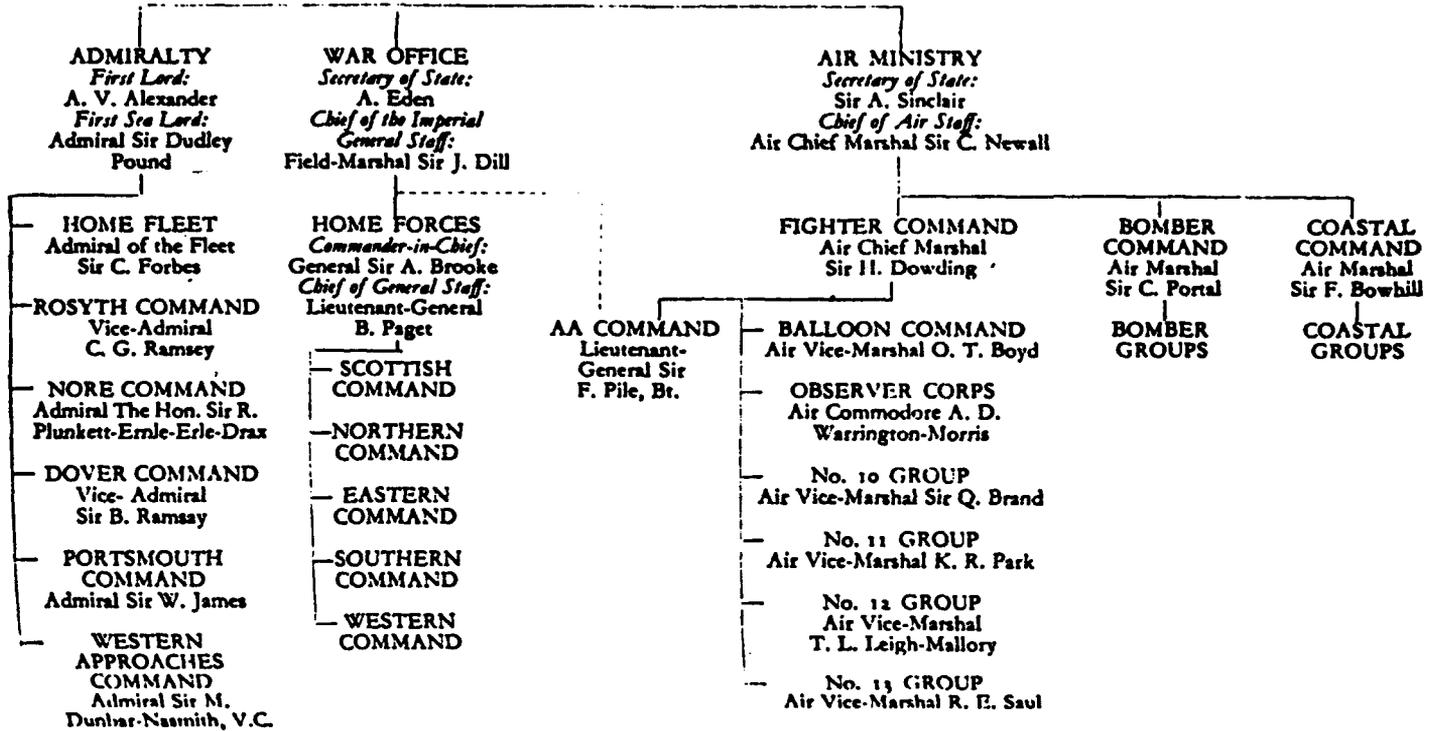
Source: Basil Collier, The Battle of Britain. New York, NY: The MacMillan Company, 1962, Appendix.

APPENDIX A-6

BRITISH CHAIN OF COMMAND FOR HOME DEFENSE
AUGUST 1940

WAR CABINET

Prime Minister and Minister of Defence: W. S. Churchill
Naval, Military and Air Advisors: The Chiefs of Staff



Source: Basil Collier, The Battle of Britain. New York, NY: The MacMillan Company, 1962, Appendix.

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